



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,696	10/19/1999	PAUL J. MURPHY	M-7803-US	3145

24251 7590 01/17/2002

SKJERVEN MORRILL MACPHERSON LLP
25 METRO DRIVE
SUITE 700
SAN JOSE, CA 95110

EXAMINER

FLEURANTIN, JEAN B

ART UNIT	PAPER NUMBER
----------	--------------

2172

DATE MAILED: 01/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

11-6

Office Action Summary

Application No.

09/420,696

Applicant(s)

MURPHY

Examiner

Jean B. Fleurantin

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2172

DETAILED ACTION

1. Claims 1-33 are presented for examination.

Drawings

2. The Formal Drawings are required in response to this Office Action.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hazama et al. (US Pat. No. 5,822,207) ("Hazama").

As per claim 1, Hazama substantially teaches a method for procuring a manufactured component through a plurality of development stages as claimed, the method comprises providing a database for storing information related to procuring the manufactured component (thus, the intelligent manufacturing system may be adapted to manage and distribute design and manufacturing information throughout a factory and may provide various features and processes for facilitating the design and production of components within the factory, such features may include the ability to search and retrieve previous job information from a central database; which is readable as providing a database for storing information related to procuring the manufactured component) (see col. 10, lines 49-55);

Art Unit: 2172

development stage of the manufactured component (thus, an intelligent manufacturing system for developing a bend model of a sheet metal part to be produced; an expert planning system for developing and proposing a bending plan for producing the sheet metal part based on the bend model; which is readable as development stage of the manufactured component) (see col. 7, lines 3-7);

modifying the database at each development stage if necessary (thus, an editing function may be provided to allow editing and modification of previous job data to create new job data that may be stored in database, which is readable as modifying the database at each development stage if necessary) (see col. 22, lines 5-12). But, Hazama does not explicitly indicate the step of sharing the database among a plurality of relevant parties; and inputting data into the database by at least one of the relevant parties during a development stage of the manufactured component. However, Hazama implicitly indicates the step of an intelligent manufacturing system for developing a bend model of a sheet metal part to be produced an expert planning system for developing and proposing a bending plan for producing the sheet metal part based on the bend model, wherein the expert planning system includes a plurality of expert modules and a system for selectively activating the plurality of expert modules in order to adapt the expert planning system for different bending applications whereby the expert planning system develops the bending plan based on the plurality of expert modules that are selectively activated; which is readable as sharing the database among a plurality of relevant parties; and inputting data into the database by at least one of the relevant parties during a development stage of the manufactured

Art Unit: 2172

component (see col. 7, lines 3-13). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Hazama with the steps of sharing the database among a plurality of relevant parties; and inputting data into the database by at least one of the relevant parties during a development stage of the manufactured component. This modification would allow the teachings of Hazama to improve the accuracy of the engineering process for procuring component/peripherals, and provide greater flexibility and customization in such expert and intelligent manufacturing systems, or programmer could adapt such systems for a wide variety of uses to accommodate different types of bending workstations and machinery (see col. 6, lines 24-29).

As per claim 2, Hazama substantially teaches a method as claimed wherein the database holds data related to procurement of a plurality of components for a computer system (thus, may provide various features and processes for facilitating the design and production of components within the factory, such features may include the ability to search and retrieve previous job information from a central database; which is readable as holds data related to procurement of a plurality of components for a computer system) (see col. 10, lines 49-55)

As per claim 3, Hazama substantially teaches a method as claimed further comprises step of providing a pointer in the database, the pointer locating data related to at least one of the development stages (thus, the intelligence manufacturing system may also organize the storage of the design and manufacturing information related to previous jobs and provide searching capabilities so that previous job information relating to similar or identical to sheet metal parts

Art Unit: 2172

may be accessed and retrieved from any location within the factory, which is readable as of providing a pointer in the database, the pointer locating data related to at least one of the development stages) (see cols. 12-13, lines 63-1).

As per claim 4, the limitations of claim 4 are rejected in the analysis of claim 1 above, and this claim is rejected on that basis.

As per claim 5, Hazama substantially teaches a method as claimed wherein the data includes: production information (thus, provide various features and processes for facilitating the design and production of components within the factory, such features may include the ability to search and retrieve previous job information from a central database; which is readable as production information) (see col. 10, lines 52-55);

testing information (thus, during this testing stage, the punched or cut stock material will be manually loaded into the press brake and the press brake will be operated to execute the programmed sequence of bands on the workpiece (see col. 2, lines 52-55);

regulatory information (thus, previous job information may be used when generating a plan for developing a new part that has the same similar features; which is readable as regulatory information) (see col. 10, lines 55-60);

cost information (see col. 33, lines 1-4).

As per claim 6, in addition to the discussion in claim 1 above, Hazama substantially teaches a method wherein the database is stored on a memory and includes: a plurality of partitions, each partition relating to manufacturing the component (thus, the expert system may

Art Unit: 2172

include one or more expert modules for generating and executing a bending plan for producing bent sheet metal components, which is readable as a plurality of partitions, each partition relating to manufacturing the component) (see col. 18, lines 13-32);

a plurality of storage locations for storing data related to the plurality of partitions (thus, an editing function may be provided to allow editing and modification of previous job data to create new job data that may be stored in database, which is readable as a plurality of storage locations for storing data related to the plurality of partitions) (see col. 22, lines 5-12);

wherein the database is accessible to a manufacturer and at least one outside vendor (thus, as shown in FIG. 2C, each of the modules 'i.e., server module 32, network database module 34, and station module 36' may be connected to communications network 26 via a network interface card or port 42, the network interface card 42 may be vendor specific and be selected based on the type of communications network that is selected; which is readable as wherein the database is accessible to a manufacturer and at least one outside vendor) (see col. 15, lines 45-50).

As per claims 7, 10, 18, and 27 Hazama substantially teaches a method as claimed wherein the database is accessible via one of an internet connection to a network, an intranet connection to a network and both an internet and intranet connection to a network (thus, communication network 26 may be implemented by a local area network (LAN), Ethernet and/or an equivalent network structure, in addition, communication network 26 may be implemented as an Intranet and/or through the use of the Internet; which is readable as wherein the database is

Art Unit: 2172

accessible via one of an internet connection to a network, an intranet connection to a network and both an internet and intranet connection to a network) (see col. 13, lines 24-28).

As per claims 8, 11, 19, and 28 Hazama substantially teaches a method as claimed wherein the database is accessible via a transportable memory (thus, each of the locations 10, 12, 14 and 20 may also include station modules having network terminating equipment 'such as a computer, mini computer or workstation' and/or peripheral devices 'such as a display monitor or screen, printers, CD-ROMs, and/or modems'; which is equivalent to wherein the database is accessible via a transportable memory) (see col. 13, lines 31-36).

As per claims 9 and 17, in addition to the discussion in claim 1 above, Hazama teaches step of a plurality of partitions, each partition relating to manufacturing the component (thus, the expert system may include one or more expert modules for generating and executing a bending plan for producing bent sheet metal components, which is readable as a plurality of partitions, each partition relating to manufacturing the component) (see col. 18, lines 13-32);

a plurality of storage locations for storing data related to the plurality of partitions (thus, an editing function may be provided to allow editing and modification of previous job data to create new job data that may be stored in database, which is readable as a plurality of storage locations for storing data related to the plurality of partitions) (see col. 22, lines 5-12);

wherein the database is accessible to a manufacturer and at least one outside vendor (thus, as shown in FIG. 2C, each of the modules 'i.e., server module 32, network database module 34, and station module 36' may be connected to communications network 26 via a

Art Unit: 2172

network interface card or port 42, the network interface card 42 may be vendor specific and be selected based on the type of communications network that is selected; which is readable as wherein the database is accessible to a manufacturer and at least one outside vendor) (see col. 15, lines 45-50).

As per claims 12 and 29, Hazama substantially teaches a method as claimed wherein the database is capable of activating a plurality of programs for viewing and editing the data, the plurality of programs enabling the manufacturer and the at least one outside vendor to view and edit identical data (thus, as shown in FIG. 2C, each of the modules 'i.e., server module 32, network database module 34, and station module 36' may be connected to communications network 26 via a network interface card or port 42, the network interface card 42 may be vendor specific and be selected based on the type of communications network that is selected; which is readable as wherein the database is capable of activating a plurality of programs for viewing and editing the data, the plurality of programs enabling the manufacturer and the at least one outside vendor to view and edit identical data) (see col. 15, lines 45-50).

As per claims 13, 21, and 30 Hazama substantially teaches a method as claimed wherein the plurality of programs are read-only views (thus, based on a client-server relationship in which the expert planning system is implemented within server module 32 and each of the locations 'including bending workstation 18' is adapted to access the expert planning system provided at server module 32 via communications network 26, when the expert planning system of server module 32 is initialized and activated, the bend model file representing the geometry and/or

Art Unit: 2172

topology of the part is downloaded from database 30 and read by the expert planning system, the bend model of the part may be developed by a CAD or CAD/CAM system and may be stored in database 30 when a customer's order is received; which is readable as wherein the plurality of programs are read-only views) (see cols. 28-29, lines 58-12).

As per claims 14, 22, and 31 the limitations of claims 14, 22, and 31 are rejected in the analysis of claims 1 and 6 above, and these claims are rejected on that basis.

As per claims 15, 23, and 32 Hazama substantially teaches a method as claimed wherein the plurality of partitions includes a plurality of forms for inputting and viewing data (thus, based on a client-server relationship in which the expert planning system is implemented within server module 32 and each of the locations 'including bending workstation 18' is adapted to access the expert planning system provided at server module 32 via communications network 26, when the expert planning system of server module 32 is initialized and activated, the bend model file representing the geometry and/or topology of the part is downloaded from database 30 and read by the expert planning system, the bend model of the part may be developed by a CAD or CAD/CAM system and may be stored in database 30 when a customer's order is received; which is readable as wherein the plurality of partitions includes a plurality of forms for inputting and viewing data) (see cols. 28-29, lines 58-12).

As per claims 16, 24, and 33 Hazama substantially teaches a method as claimed wherein the plurality of forms include at least one of an evaluation form, a regulatory form, a reliability form, a design review form, a manufacturability form, a documentation form, a system test form,

Art Unit: 2172

a mechanical form, a bench test form and a report form (thus, other recent developments have also improved the efficiency of the design and manufacturing process, and have provided a greater level of automation in the production process of sheet metal components, for example, robotic manipulators and controllers have been developed for handling and positioning sheet metal workpieces within a press brake to perform bending operations, further, material handlers have been provided for loading and positioning workpieces at a location for a robot to grasp and for unloading finished workpieces repositioning grippers have also been introduced for holding a workpiece within a press brake while a robot changes or repositions its grasp of the workpiece; which is readable as wherein the plurality of forms include at least one of an evaluation form, a regulatory form, a reliability form, a design review form, a manufacturability form, a documentation form, a system test form, a mechanical form, a bench test form and a report form) (see col. 3, lines 42-54).

As per claim 20, substantially Hazama teaches a method as claimed further comprises enabling the manufacturer and the at least one outside vendor to view identical data via a plurality of programs for viewing and editing the data (see cols. 28-29, lines 58-12).

As per claim 25, Hazama substantially teaches a method as claimed wherein the plurality of partitions includes a second subset of the plurality of fields for inputting data related to test results (thus, previous job information may be used when generating a plan for developing a new part that has the same similar features; which is readable as wherein the plurality of partitions

Art Unit: 2172

includes a second subset of the plurality of fields for inputting data related to test results) (see col. 10, lines 55-60).

As per claim 26, in addition to the discussion in claims 1 and 9 above, Hazama substantially teaches the step of a processor (see col. 14, lines 25-26);

system memory coupled to the processor (see col. 14, lines 24-26).

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Van Huben et al. US Patent Number 5,864,875 relates to control data management system.

Conclusion

5. Any inquiry concerning this communication from examiner should be directed to Jean Bolte Fleurant at (703) 308-6718. The examiner can normally be reached on Monday through Friday from 7:30 A.M. to 6:00 P.M.

If any attempt to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Mrs. KIM VU can be reached at (703) 305-8449. The FAX phone numbers for the Group 2100 Customer Service Center are: *After Final* (703) 746-7238, *Official* (703) 746-7239, and *Non-Official* (703) 746-7240. NOTE: Documents transmitted by facsimile will be entered as official documents on the file wrapper unless clearly marked "***DRAFT***".

Art Unit: 2172

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2100 Customer Service Center receptionist whose telephone numbers are (703) 306-5631, (703) 306-5632, (703) 306-5633.



Jean Bolte Fleurantin

January 10, 2002

JBFB/



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100